

PROJECT NUMBER: 4009  
PROJECT TITLE: Development Smoke Studies  
PROJECT LEADER: B. L. Goodman  
PERIOD COVERED: July, 1987

I. PROJECT STUDIO (John Hearn)

- A. Objective: Develop subjectively acceptable cigarettes with reduced sidestream visibility.
- B. Status: The OC Panel retest of the Marlboro Lights type model was still rated as less acceptable than the Marlboro Lights control, although none of the attributes were significantly different. Another aftercut system has been selected for the Flavor Low prototype for extended testing on the OC Panel along with the Marlboro Lights control. Evaluation of cigarettes with wrappers containing either citrate or acetate burn additives has determined that no significant analytical differences or subjective preferences were found between them. Another set of bobbins has been requested from Ecusta for a final subjective comparison. Ultra Low tar prototypes have been evaluated and an aftercut has been chosen for the next series of cigarettes in the 4-5 mg tar range.

Full Flavor versions with several construction variations have been made. Subjective evaluations will begin when the analytical data is completed.

Blend modifications suggested by the Leaf Department have been evaluated in the Ultra Slim construction by the Studio Panel. New models have been requested with blend changes and filtration modifications to further improve the subjective characteristics. Models with two levels of menthol will also be made. The best regular and menthol model will be tested by PED with the TRIM candidate without Mg(OH)<sub>2</sub> paper.

Tests are in progress to determine the machineability of the standard Mg(OH)<sub>2</sub> wrapper at production speeds. Currently, testing of different seam adhesives is being done with rods of 24.8mm circumference, but the ultimate goal is to qualify the wrapper for use in Project TRIM models.

Cigarettes were evaluated with different levels and types of burn additive on a 40% Mg(OH)<sub>2</sub> wrapper. The cigarettes were very slow burning and did not have an acceptable taste with the blend (#102) that was used. Additional models with high levels of expanded tobaccos have been requested.

- C. Plans: Evaluate the latest series of Ultra Slim models and recommend candidates for consumer testing by PED in mid-August.

Continue with trials to evaluate the suitability of the Mg(OH)<sub>2</sub> wrapper for use at production speeds and transfer the information to the appropriate personnel.

Subjectively evaluate the Full Flavor and new Ultra Low tar models.

II. TIPPING PAPER (R. Arthur)

- A. Objective: To evaluate alternate cork tipping papers.
- B. Results: Three samples of iron oxide base tippings were submitted by Ecusta and one by Kimberly-Clark. The tippings were in response to a request to meet German regulations for tipping colors. The tippings were laser perforated and cigarettes were made from the bobbins along with a control Ecusta 701 bobbin, the current production tipping. Filter flare-up testing gave unacceptable results ranging from 2% to 20% for the new tippings compared to the control with 0% flare-up. The results have been discussed with the vendors, and no further testing will be done. Modified samples are expected at a later date.